

## **COST 715**

### **Minutes on the WG3 meeting 23 May 2001, Zürich, Switzerland**

**Participants:** Jaakko Kukkonen (Chair), FIN, László Bozó (Rapporteur), HUN, Guy Schayes, BEL, Alix Rasmussen, DEN, Barbara Fay, GER, Györgyi Baranka, HUN, Sandro Finardi, ITA, Erik Berge and Leiv Havard Slordal, NOR, Renato Carvalho and Victor Prior, POR, Millan Millan and Gotzon Gangoit, SPA, Ranjeet Sokhi and Doug Middleton, UK, Antonio Viseu, Macau, Petroula Louka, Greece, Zoltan Dunkel, COST secretariat.

#### **1. Welcome**

The chairman welcomed all participants. Mathias Rotach welcomed the participants to Zurich and to the institute (Swiss Federal Institute of Technology).

#### **2. Adoption of agenda**

The agenda was reviewed and accepted.

#### **3. Adoption of minutes of previous WG meeting**

The minutes of the WG meeting in Valencia (14-15 September 2000) were accepted without any changes.

#### **4. Introduction of new participants**

There were no new participants.

#### **5. Status Report of Working Group 3**

A manuscript of the Status Report (SR) was previously disseminated to the WG participants by the COST Secretariat. The Management Committee has decided to have the SR officially printed by the COST Secretariat. The latest version can be downloaded from the [www](#) pages.

However, the printing has taken a long time. The final version was submitted to be printed in August 2000 that is almost a year ago. The WG therefore considers other ways of publishing in the future.

The SR dissemination list will be compiled by Zoltan Dunkel. Participants were reminded to send national mailing lists to Z. Dunkel, which could include, e.g., relevant national authorities and local end-users.

There was some discussion on updating the SR. The chairman will take care that any new contributions and updates of previous contributions that will be sent to him, will be transferred to the SR version on the www. It would then be possible to print an updated version of SR in the future.

## **6. Review of work and status by the regional co-ordinators**

In the last WG meeting in Valencia, it was decided to categorise the work into three workpackages (WP), which were formed in terms of the following European geographic regions:

- Northern European region (NE) (coordinator Erik Berge),
- Central European region (CE) (coordinators Guy Schayes and László Bozó) and
- Mediterranean or Southern European region (SE) (coordinator Rosa Salvador).

Within each of these regions, it was decided that the following items will be addressed:

1. Analysis of episodes, in particular the meteorological conditions,
2. Available datasets,
3. Numerical Weather Prediction (NWP) models and Air Quality Forecasting methods and
4. Meteorological pre-processors.

There were presentations by the above mentioned persons, except for the fact that R. Salvador was replaced by Millan Millan. Barbara Fay was also given an opportunity to present briefly the activities of the German Weather Service in this area.

The speakers discussed relevant research and provided detailed information on the above mentioned items from (1) to (4). One general feature is that tropospheric ozone episodes are important in SE and CE regions. Particulate matter episodes in winter are important especially in NE and CE regions.

The presentations resulted in vivid discussion and the exchange of experience. However, the presentations were mostly focused on the work accomplished by the regional coordinators themselves and their coauthors; instead of being genuine reviews of research in the various regions. In the resulting discussion, it was generally felt that a more concrete cooperation will definitely be needed in the future.

## **7. Presentation of the FOSEC activity, by Petroula Louka**

Petroula Louka had been invited, and she kindly accepted the invitation to present the FOSEC activity that is closely related to the topic of this WG. The FOSEC (Formation of Ozone in South European Cities) activity aims at improving our understanding on photochemical air pollution in South European cities, and it is part of the SATURN project.

The meteorological conditions favouring high photochemical pollution in southern Europe will be investigated. The scale interactions with regard to ozone formation will also be studied and the relevance of regional and local emissions of ozone precursors will be analysed. Finally, the role of aerosols will be considered, and aspects related to the NO<sub>x</sub> and VOC sensitivity and to photosmog indicators will be reviewed.

The questions that FOSEC intends to address were identified and possible solutions were reviewed. The latter are derived from the work performed by various groups within and outside SATURN. To provide an easier access for those wishing to contribute to FOSEC, a virtual forum has been established, <http://aix.meng.auth.gr/saturn/forum/>

In the subsequent discussion, M. Millan reminded of some historical failures, in which important lessons from past extensive EU projects were not taken into account. In the discussion, many people felt that while this is a valid point, we should try our best to avoid such difficulties in the future. This COST action and the SATURN project, including the FOSEC action, therefore need to exchange information regularly, and aim for a working cooperation. Finally, the chairman thanked Dr. Louka for her visit to the WG meeting and the presentation.

## **8. The status of the FUME and other related proposals**

Unfortunately, the FUME proposal was not accepted. The statements of the evaluators and other relevant information were reviewed and discussed. A. Baklanov (not present in the WG meeting) and A. Rasmussen will consider a possible re-submission of this proposal, after revisions, for the call of proposals with a deadline in 15 October, 2001.

R. Sokhi mentioned the MAPLE proposal by Helen ApSimon in the U.K.

## **9. Work plan until next WG meeting**

The duration of this COST action is from September 1998 to September 2003.

### **9.1 Structuring of the work**

After discussion, a revised work plan (WP) was formed. This contains the following WP items (coordinators in parenthesis):

- WP 1: Analysis and evaluation of meteorological data during air pollution episodes in European urban areas (Ranjeet Sokhi),
- WP 2: Evaluation and testing of the performance of various mesoscale and NWP models against a specific dataset in the course of air pollution episodes (Erik Berge), and
- WP 3: Evaluation and testing of a specific model against various datasets in the course of air pollution episodes (Millan Millan).

The idea of WP 1 is first to compile relevant data in a structured and harmonised form, using a specific questionnaire, and then analyse and evaluate the results. The work should be limited to a few of the most important compounds (as, e.g., PM<sub>x</sub>, NO<sub>x</sub> and O<sub>3</sub>), and a specific list of

meteorological variables. Based on the initial questionnaire, a limited number of cities will be selected (those with the best available information, and covering various European regions), and the corresponding results for these will be inter-compared.

The basic idea of WP's 2 and 3 is to evaluate either several models against one dataset (WP 2), or one model against several datasets (WP 3). Clearly, while the WP's 2 and 3 are partly complementary, these can be partly overlapping. The main focus of WP 2 will probably be on the CE and NE regions, while WP 3 will have more emphasis on the SE and CE regions.

One particular model evaluation exercise could address the testing of the performance of the MM5 model in various cities (for instance, Oslo, Helsinki and Copenhagen). The meteorological dataset from a mast that is 330 high in the Helsinki Metropolitan Area (Kivenlahti mast) is available for model evaluation studies.

These work packages are intended to be a starting point for a more concrete cooperation between the participants. The final objective is to produce a joint publications, peer-reviewed if possible, based on each comparison or evaluation activity in these WP's.

A specific time-table was also set for these actions. These WP's have to be completed within six months, i.e., latest in November 2001, and the WP coordinators are responsible for keeping this timetable. The results of this work will be presented by the WP coordinators and discussed at the next WG meeting in Toulouse, France in 3-4 October, 2001, both at the WG3 meeting and the Workshop.

The chairman mentioned that urban model evaluation and intercomparison activities are also in progress within the APPETISE project in several European cities (<http://www.uea.ac.uk/env/appetise/>).

## **9.2 Planning of the future workshop "Mixing Height and Inversions"**

After discussion, a preliminary list of presentations was written for the workshop in Toulouse in October 2001. The preliminary list of volunteers was the following: Joffre or Karppinen, Millan, Carvalho, Sokhi, Berge and Finardi. One invited expert will also be invited to keep a presentation; David Whiteman was suggested as a possible candidate.

The detailed program and the number of speakers depends on the time-table of other parts of the COST meeting, and on the views of the co-organiser that is WG2 (chair M. Piringer). It was therefore not possible to decide a final list of speakers at this meeting. The chairman thanked the volunteered speakers, and will continue the preparation of a more definite programme in cooperation with M. Piringer and B. Fisher.

## **9.3 Joint publications, preparation of final report of COST 715, etc.**

One important objective of the COST action is to result in peer-reviewed publications. The number of such papers will also be used in the evaluation of the action. The final objective of the model comparison or evaluation activities in this WG is therefore to produce joint publications, preferably peer-reviewed ones.

R. Sokhi mentioned a possibility of producing a book on episodes. This idea was discussed, and the chairman will ask the opinion and views on this matter of the COST management committee. If the writing of a book would be feasible, the chairman will act as an editor and ask for contributions from the WG participants.

The preparation of a final report was postponed for the moment.

#### **10. The www pages**

The FMI maintains the WG www site. However, some parts of the www pages are outdated. The chairman promised to start an updating of these pages and inform participants of a new version. In particular, this concerns the contact information. All WG participants are encouraged to suggest corrections, revisions etc., whenever needed.

The address of our WG www pages has been changed to be <http://cost.fmi.fi/> (the link <http://cost.fmi.fi/eng/ila/cost715> is does not work any more).

#### **11. Short term scientific missions, study contracts, invited experts**

None at the moment.

#### **12. Report on symposia related to the topics of WG**

Information on the relevant symposia will be updated to the www pages.

#### **13. Date and place of next meeting**

Next meeting will be kept in Toulouse, France, 3-4 October, 2001. The local organiser will be Meteo France.

#### **14. Any other business**

None.

12 June, 2001

Jaakko Kukkonen

László Bozó